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# Distribution of a Generic Mission Planning and Scheduling Toolkit for Astronomical Spacecraft

Contract NAS5-32800

Progress Report No. 4

For the period 19 October 1997 through 18 October 1998

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The work under this contract will be completed within the next few months.

The SWAS spacecraft is now scheduled to launch 12/2/98 and the flight version of the planning and scheduling software has been completed and tested. A final export version of the system should become available a few months after launch.

A few refinements will be incorporated into the SWAS scheduling toolkit before launch. These improvements include better ephemeris processing, refined gyro calibration target generation, a new guide star catalog and a manual scheduling mode for engineering observations.

The scheduling system is being used right now to plan the SWAS launch and early orbit activities. It has met its design goal of being fast, friendly and flexible. In particular, its modular structure makes it very easy to add functionality without perturbing the rest of the system.

A laptop has been purchased with contract funding to serve as a demonstrator and a testbed for portable scheduling tools. The flight version of the SWAS planning and scheduling system will be described at the 1998 Astronomical Data Analysis and Software Systems Conference in Urbana-Champaign, IL, in November 1998. A web site, http://www.quaternion.harvard.edu, is being set up to describe the planning and scheduling package and to serve as a distribution site.

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The flight version of the planning and scheduling software has been completed and tested. A final export version of the system should become available a few months after SWAS launch, which is now scheduled on 12/2/98. A few refinements will be incorporated into the SWAS scheduling toolkit before launch. These improvements include better ephemeris processing, refined gyro calibration target generation, a new guide star catalog and a manual scheduling mode for engineering observations.

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